

**DEPARTMENT OF TRANSPORTATION****DIVISION OF ENGINEERING SERVICES**

Office of Structural Materials

Quality Assurance and Source Inspection



Bay Area Branch  
690 Walnut Ave.St. 150  
Vallejo, CA 94592-1133  
(707) 649-5453  
(707) 649-5493

Contract #: 04-0120F4Cty: SF/Ala Rte: 80 PM: 13.2/13.9File #: 69.28**WELDING INSPECTION REPORT****Resident Engineer:**Siegenthaler, Peter**Address:** 333 Burma Road**City:** Oakland, CA 94607**Report No:** WIR-016787**Date Inspected:** 11-Sep-2010**Project Name:** SAS Superstructure**OSM Arrival Time:** 1900**Prime Contractor:** American Bridge/Fluor Enterprises, a JV**OSM Departure Time:** 700**Contractor:** Zhenhua Port Machinery Company, Ltd (ZPMC), Changxing Island **Location:** Shanghai, China**CWI Name:** See below**CWI Present:** Yes No**Inspected CWI report:** Yes No N/A**Rod Oven in Use:** Yes No N/A**Electrode to specification:** Yes No N/A**Weld Procedures Followed:** Yes No N/A**Qualified Welders:** Yes No N/A**Verified Joint Fit-up:** Yes No N/A**Approved Drawings:** Yes No N/A**Approved WPS:** Yes No N/A**Delayed / Cancelled:** Yes No N/A**Bridge No:** 34-0006**Component:** Tower and OBG Components**Summary of Items Observed:**

On this date Caltrans OSM Quality Assurance Inspector (QA Inspector) George Goulet was present during the times noted above for observations relative to the work being performed.

Bay 10

This QA Inspector randomly observed the following work in progress in Bay 10:

ABF Representative Kelvin Cheung notified this QA Inspector that weld joint SEG3007AC-002, side B located on PCMK OBG segment 13AE, bottom plate was finished and ABF MT (magnetic particle testing) technicians would perform 100% MT on side A of the weld after rotating the plate to bring side A facing upward. This QA Inspector witnessed The ABF technicians perform MT on side A of the weld joint, then this QA Inspector performed random VT (visual testing) and MT on side A of the same weld. ABF MT technicians and this QA Inspector concurred that no apparent indications were observed.

SAW welding of weld joint SEG3007AC-002, side A located on PCMK OBG segment 13AE, bottom plate. Tandem welders were identified as 062406, 058100. QC was identified as ABF CWI Wang Heng (QC1). Assisting QC1 at this location and appearing to be monitoring the welding and recording data was ZPMC QC Zhong Guo Hui (QCA1), who was not a CWI. Welding variables recorded by QCA1 appeared to comply with WPS-B-T-2221-B-U3c-S-2. The weld was being kept at or above the minimum preheat and interpass temperature with electric heaters placed above and below the plates at the weld.

ABF Representative Kelvin Cheung notified this QA Inspector that weld joint SEG3007AC-002, side A located

---

## WELDING INSPECTION REPORT

( Continued Page 2 of 2 )

---

on PCMK OBG segment 13AE, bottom plate was finished and ABF MT (magnetic particle testing) technicians would perform 100% MT on side B of the weld after rotating the plate to bring side B facing upward. This QA Inspector witnessed The ABF technicians perform MT on side B of the weld joint, then this QA Inspector performed random VT (visual testing) and MT on side B of the same weld. ABF MT technicians and this QA Inspector concurred that no apparent indications were observed.

SMAW repair welding of weld joint SSD1-TL5-3B-F-20 located on PCMK south tower, lift 5, internal connection plates. Welder was identified as 057258. QC was identified as ZPMC CWI Liu Yang (QC2). Assisting QC2 at this location and appearing to be monitoring the welding and recording data was ZPMC QC Yu Zhi Lai (QCA2), who was not a CWI. Welding variables recorded by QCA2 appeared to comply with WPS-485-SMAW-3G(4G)-repair as listed on ZPMC Repair Report T-WR3591 as presented to this QA Inspector by QCA2.

SMAW repair welding of weld joint NSD1-TL5-3B-F-20B located on PCMK north tower, lift 5, internal connection plate to skin A. Welder was identified as 500363. QC was identified as QC2. Assisting QC2 at this location and appearing to be monitoring the welding and recording data was QCA2, who was not a CWI. Welding variables recorded by QCA2 appeared to comply with WPS-485-SMAW-3G(4G)-repair as listed on ZPMC Repair Report T-WR3585 as presented to this QA Inspector by QCA2.

FCAW tack welding of weld joints BP3088-001-063, 064 located on PCMK OBG bottom plate to stiffeners. Welders were identified as 044473. QC was identified as QC2. Assisting QC2 at this location and appearing to be monitoring the welding and recording data was ZPMC QC Li Peng Fei (QCA3), who was not a CWI. Welding variables recorded by QCA3 appeared to comply with WPS-B-P-2132.

Unless otherwise noted, all work observed on this date appeared to generally comply with applicable contract documents.

### Summary of Conversations:

As noted above.

### Comments

This report is for the purpose of determining conformance with the contract documents and is not for the purpose of making repair or fit for purpose recommendations. Should you require recommendations concerning repairs or remedial efforts please contact Micheal Ng, 159-2184-5703, who represents the Office of Structural Materials for your project.

---

<b>Inspected By:</b>	Goulet,George	Quality Assurance Inspector
<b>Reviewed By:</b>	Dawson,Paul	QA Reviewer

---